

CLAIMS

1. An apparatus for retaining a well tool within a borehole having a borehole wall, comprising:

first and second tapered members oppositely disposed on a camming member

disposed between said first and second tapered members;

said first and second tapered members having a contracted position on said camming member not engaging the borehole wall and an expanded position engaging the borehole wall.

2. The apparatus of claim 1 further including an actuation assembly moving said tapered members between said expanded and contracted positions.

3. The apparatus of claim 2 wherein said actuation assembly includes a piston and cylinder.

4. The apparatus of claim 3 wherein said actuation assembly includes a return spring biasing said piston.

5. The apparatus of claim 2 wherein said tapered members, camming member and actuation member are disposed on a common mandrel.

6. The apparatus of claim 1 wherein said tapered members are disposed on a common mandrel with said tapered members extending over 180° around said mandrel.

7. The apparatus of claim 6 wherein said tapered members include tapered surfaces, a portion of which extend on each side of said mandrel.

8. The apparatus of claim 5 wherein said tapered members and camming member have inter-
5 engaging surfaces with said mandrel to prevent relative rotation with respect to said mandrel.

9. The apparatus of claim 1 further including biasing members forcing said tapered members and said camming member apart.

10. An apparatus for anchoring a well tool within a borehole, comprising:

a propulsion housing;

at least one inner wedge attached to said housing;

at least one extendable arm;

an outer wedge attached to said extendable arm;

a hydraulically actuated piston located within said housing;

a double sided wedge connected to said piston to engage said inner and said outer
wedge concurrently; and

said extendable arm actuated by engagement of said inner and said outer wedges by
said double sided wedge.

11. An apparatus for anchoring a well tool within a borehole, comprising:

an extendable member; and

a double sided wedge device to actuate said extendable member.

12. An apparatus for cutting an aperture in an existing cased borehole comprising:

an umbilical;

a bottom hole assembly attached to one end of said umbilical and including a housing having a retention module disposed on each end thereof and engaging the cased borehole;

said retention module having at least one extendable member actuated by wedges linked to a hydraulic piston.

13. An apparatus for transporting well tools into and out of a borehole comprising:

an umbilical;

a propulsion system attached to one end of said umbilical and including a housing having a retention module disposed on each end thereof and engaging the cased borehole;

a well tool attached to said propulsion system;

said retention module having at least one extendable member actuated by wedges linked to a hydraulic piston.

14. An apparatus for performing interventions in a borehole comprising:

an umbilical;

a propulsion system attached to one end of said umbilical and including a housing having a retention module disposed on each end thereof and engaging the cased borehole;

said retention module having at least one extendable member actuated by wedges linked to a hydraulic piston.